

(c) removing **from said well** a liquid product composition comprising said solubilized hydrocarbon solids and said alkanol.

Claim 1 is amended herein to recite "said alkanol" in step (c); the claim as amended is supported in the specification e.g. in paragraph 0026 on page 9.

Certain terms in the above presentation of claim 1 have been printed ***in this manner***, in order to emphasize what is being claimed. Thus, according to this invention, a feed composition comprising carbon dioxide and alkanol is fed into an oil well, it is allowed to remain ***in the well*** (i.e. in the same well that the feed composition was fed into), and then a liquid product composition comprising solubilized hydrocarbon solids and said alkanol is removed ***from said well***, that is, from the same well that the feed composition was fed into.

These emphasized terms confirm why the claims are not anticipated by any of the cited references, as will be described as follows:

Claims 1 and 5-8 stand rejected under 35 U.S.C. 102 (b) as anticipated by U.S. Patents No. 4,899,817, No. 4,678,036, and No. 6,170,264. This rejection is traversed.

Applicant's claims require removing solubilized hydrocarbon solids and alkanol from "said well", that is, from the same well into which was fed the feed composition comprising carbon dioxide and alkanol. By contrast, none of the references cited in this rejection discloses feeding a composition comprising carbon dioxide and alkanol into an oil well and then removing solubilized hydrocarbon solids and said alkanol from the same well.

For instance, U.S. Patent No. 4,899,817 discloses injecting a composition into an "injection well" and removing product from a "production well". As defined, the "injection well" is not, and cannot be, the

same well as the “production well”. See e.g., column 3, line 57 to column 4, line 5, and column 6, lines 37-51.

This patent does not disclose feeding or injecting a composition comprising carbon dioxide and alkanol into an oil well and then removing product from the same well.

Since U.S. Patent No. 4,899,817 does not disclose a feature required by applicant’s claims, the patent does not anticipate and the rejection of claims 1 and 5-8 based on this patent should be withdrawn.

Likewise, U.S. Patent No. 4,678,036 discloses injecting a composition into an “injection well” and removing product from a “production well”. As defined, the “injection well” is not, and cannot be, the same well as the “production well”. See e.g., column 3, lines 24-40.

This patent does not disclose feeding or injecting a composition comprising carbon dioxide and alkanol into an oil well and then removing product from the same well.

Since U.S. Patent No. 4,678,036 does not disclose a feature required by applicant’s claims, the patent does not anticipate and the rejection of claims 1 and 5-8 based on this patent should be withdrawn.

U.S. Patent No. 6,170,264 is even further distinct from applicant’s claims. This patent does not even disclose alkanol as being a possible component of what is fed down an oil well. In addition, the portion of this patent that even relates to putting carbon dioxide into an oil well is directed only to keeping the material in the well – that is, the oil well is considered a place to keep the carbon dioxide as permanently as possible. This is not a disclosure of a method which, as claimed by applicant, requires removal of solubilized hydrocarbon solids from the oil well.

This patent does not disclose feeding or injecting a composition comprising carbon dioxide and alkanol into an oil well and then removing product from the same well.

Since U.S. Patent No. 6,170,264 does not disclose features required by applicant's claims, the patent does not anticipate and the rejection of claims 1 and 5-8 based on this patent should be withdrawn.

Applicant therefore respectfully submits that the rejection of claims 1 and 5-8 as anticipated can and should be withdrawn.

Claims 1-8 stand rejected under 35 U.S.C. 102(b) as anticipated by U.S. Patents No. 4,495,995; No. 4,113,011; No. 5,045,220; No. 5,022,467; or No. 4,609,043. This rejection is respectfully traversed.

As pointed out above, claims 1-8 require that a feed composition comprising carbon dioxide and alkanol is fed into an oil well, it is allowed to remain ***in the well*** (i.e. in the same well that the feed composition was fed into), and then a liquid product composition comprising solubilized hydrocarbon solids and said alkanol is removed ***from said well***, that is, from the same well that the feed composition was fed into.

By contrast, none of the references cited in this rejection discloses feeding a composition comprising carbon dioxide and alkanol into an oil well and then removing solubilized hydrocarbon solids and said alkanol from the same well.

For instance, U.S. Patent No. 4,495,995 discloses injecting a composition into one well and removing product only from a different well. As defined, the two wells are not, and cannot be, the same wells. See e.g., column 2, lines 6-14, and column 3, lines 58-63.

In addition, U.S. Patent No. 4,495,995 fails to disclose any feeding of alkanol into any well.

Thus, this patent does not disclose feeding or injecting a composition comprising carbon dioxide and alkanol into an oil well and then removing product from the same well.

Since U.S. Patent No. 4,495,995 does not disclose features required by applicant's claims, the patent does not anticipate and the rejection of claims 1-8 based on this patent should be withdrawn.

U.S. Patent No. 4,113,011 discloses injecting a composition into an "injection well" and removing product from a "production well". As defined, the "injection well" is not, and cannot be, the same well as the "production well". See e.g., column 3, lines 33-48.

This patent does not disclose feeding or injecting a composition comprising carbon dioxide and alkanol into an oil well and then removing product from the same well.

Since U.S. Patent No. 4,113,011 does not disclose a feature required by applicant's claims, the patent does not anticipate and the rejection of claims 1-8 based on this patent should be withdrawn.

Likewise, U.S. Patent No. 5,045,220 discloses injecting a composition into an "injection well" and removing product from a "production well". As defined, the "injection well" is not, and cannot be, the same well as the "production well". See e.g., column 5, lines 3-25.

This patent does not disclose feeding or injecting a composition comprising carbon dioxide and alkanol into an oil well and then removing product from the same well.

Since U.S. Patent No. 5,045,220 does not disclose a feature required by applicant's claims, the patent does not anticipate and the rejection of claims 1-8 based on this patent should be withdrawn.

Also likewise, U.S. Patent No. 5,022,467 discloses injecting a composition into an "injection well" and removing product from a "production well". As defined, the "injection well" is not, and cannot be, the same well as the "production well". See e.g., column 3, lines 51-57.

This patent does not disclose feeding or injecting a composition comprising carbon dioxide and alkanol into an oil well and then removing product from the same well.

Since U.S. Patent No. 5,022,467 does not disclose a feature required by applicant's claims, the patent does not anticipate and the rejection of claims 1-8 based on this patent should be withdrawn.


Also likewise, U.S. Patent No. 4,609,043 discloses injecting a composition into an "injection well" and removing product from a "production well". As defined, the "injection well" is not, and cannot be, the same well as the "production well". See e.g., column 1, lines 51-57 and column 3, lines 49-54.

This patent does not disclose feeding or injecting a composition comprising carbon dioxide and alkanol into an oil well and then removing product from the same well.

Since U.S. Patent No. 4,609,043 does not disclose a feature required by applicant's claims, the patent does not anticipate and the rejection of claims 1-8 based on this patent should be withdrawn.

For all the foregoing reasons, applicant respectfully submits that the rejection of claims 1-8, like the rejection of claims 1 and 5-8, can and should be completely removed.

Respectfully submitted,



Donald T. Black
Attorney for Applicants
Reg. No. 27,999

Praxair, Inc.
39 Old Ridgebury Road
Danbury, CT 06810-5113
Phone: (203) 837-2669
Date: March 14, 2006